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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,456	12/12/2003	Eric J. Zbinden	42P16233	9690

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EXAMINER	
SONG, SARAH U	

ART UNIT	PAPER NUMBER
2874	

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/734,456	ZBINDEN, ERIC J.	
	Examiner	Art Unit	
	Sarah Song	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 December 1205 and 03 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on December 12, 2005 and January 3, 2006 have been entered. Claims 1-10, 17 have been amended. Claims 1-20 are pending.

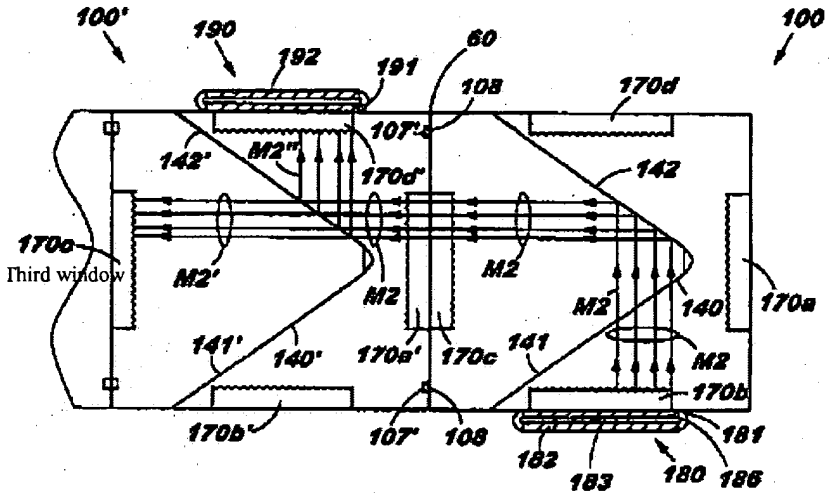
Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1, 3-10 and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Denneau et al. (U.S. Patent 6,836,015 previously relied upon).**

4. Regarding claim 1, Denneau et al. discloses an optoelectronic apparatus, comprising: a first package 100 comprising a first window 170c, said first package to house a first device 142 or 181 to perform a first optical or optoelectronic function; and a second package 100', being a same size and shape as the first package, comprising a second window 170a', said second package to house a second device 142' or 191 to perform a second optoelectronic function; said first package attached to said second package to allow a light beam to pass between said first window and said second window.



5. Regarding claim 3, either of said first window and said second window comprises an opening 170c or 170a'.

6. Regarding claim 4, said second package comprises a third window (e.g. 170c) to couple with a third package.

7. Regarding claim 5, said second package comprises a feedthrough for a fiber. See Figure 13.

8. Regarding claim 6, either of said devices comprises a passive device 142, 142'.

9. Regarding claim 7, said passive device comprises one of a mirror and splitter (column 3, lines 156-61).

10. Regarding claim 8, either of said devices comprises an active device 180 or 190.

11. Regarding claim 9, said active device 180 comprises a laser (column 4, lines 20-26).

12. Regarding claim 10, Denneau et al. also discloses a method, comprising: providing a plurality of same size and shape packages 100 and 100' each housing a device 142 or 181 and 142' or 191 for performing an optical or optoelectronic function; providing at least one window

170c and 170a' in each of said packages; coupling said plurality of packages together; and transmitting a beam between windows of adjacent packages. See Figure 3A.

13. Regarding claim 12, the method further comprises providing a package comprising a feedthrough for a fiber. See Figure 13.

14. Regarding claim 13, at least one said device comprises a passive device 141, 142.

15. Regarding claim 14, said passive device comprises one of a mirror and splitter (column 3, lines 156-61).

16. Regarding claim 15, at least one said device comprises an active device 180 or 190.

17. Regarding claim 16, said active device 180 comprises a laser (column 4, lines 20-26).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19. **Claims 2, 11 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Denneau et al.**

20. Regarding claim 2, said first window 17 comprises a transparent material (e.g. the glass (column 3, lin3 19) block comprising the boundary). Denneau et al. does not expressly disclose the window to form a hermetic package. However, it is well known that glass is an impermeable material and therefore naturally provides a hermetic package. Furthermore, Denneau et al. discloses that the components 181 and 182, for example, are encapsulated by an adhesive (column 4, lines 33-34), thereby also providing hermeticity. Therefore, one of ordinary skill in

the art would have recognized that the glass block, resulting in a window of transparent material, and the encapsulant resultantly provide a hermetic package. Furthermore, one of ordinary skill in the art would have been motivated to provide a hermetic package since it was known in the art that hermetic packages reduce fluctuations and degradation of optoelectronic device performance due to environmental factors.

21. Regarding claim 11, Denneau et al. discloses bonding the respective packages to one another by various adhesives (column 6, lines 3-6), but does not expressly disclose one of solder, weld and epoxy. Epoxies are well known in the art for inexpensively bonding optical components. Solders and welds are known in the art for providing hermetic seals. Therefore, t would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize any known bonding means suitable for glass components, such as epoxy and solder since applicant has not disclosed that the particular bonding means solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with any bonding means.

22. Regarding claim 17, Denneau et al. discloses a modular optoelectronic system, comprising: a plurality of same size and shape packages 100 and 100', each comprising at least one window 107c and 107a'; a device 142, 142' in each of said plurality of packages to perform a particular function (e.g. beam redirection) for an optoelectronic product; coupling means 107 and 108 or additionally an adhesive (column 6, lines 3-6) for coupling ones of said packages together to pass a collimated beam between adjacent windows and to optically connect each said device to form said optoelectronic product.

23. Denneau et al. does not expressly disclose the packages to be hermetically sealed. However, it is well known that glass is an impermeable material and therefore naturally provides a hermetic package. Furthermore, Denneau et al. discloses that the components 181 and 182, for example, are encapsulated by an adhesive (column 4, lines 33-34), thereby also providing hermeticity. Therefore, one of ordinary skill in the art would have recognized that the glass block, resulting in a window of transparent material, and the encapsulant resultantly provide a hermetic package. Furthermore, one of ordinary skill in the art would have been motivated to provide a hermetic package since it was known in the art that hermetic packages reduce fluctuations and degradation of optoelectronic device performance due to environmental factors.

24. Regarding claim18, the system further comprises a package including a fiber feedthrough. See Figure 13.

25. Regarding claim 19, each said device comprises one of a passive device an active device, i.e. a passive device.

26. Regarding claim 20, Denneau et al. discloses bonding the respective packages to one another by various adhesives (column 6, lines 3-6), but does not expressly disclose one of solder, weld or epoxy. Epoxies are well known in the art for inexpensively bonding optical components. Solders and welds are known in the art for providing hermetic seals. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize any known bonding means suitable for glass components, such as epoxy or solder since applicant has not disclosed that the particular bonding means solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with any bonding means.

Response to Arguments

27. Applicant's arguments filed December 12, 2005 have been fully considered but they are not persuasive.

28. Applicant states that the "devices" are located on a flexible circuit outside of the package and therefore are not housed within the cube as claimed. Examiner respectfully disagrees. The packages of Denneau et al. clearly comprise at least devices such as 142 and 142', which are housed within the package (i.e. enclosed by the packaged). Device 181 is also housed within the package since it is encapsulated by adhesive and on the interior of the package bound by the flex circuit 183 for example.

29. Applicant also asserts that the size and shape of the "packages" are different. Examiner respectfully disagrees. Figure 3A clearly shows at least 2 packages whose size and shape are identical (when considered with and without the flex circuit).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Song whose telephone number is 571-272-2359. The examiner can normally be reached on M-Th 7:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 571-272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sarah Song
Primary Examiner
Group Art Unit 2874